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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/865,138	05/24/2001	Gary D. Ellis	IN-5468	2692

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EXAMINER
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CARRILLO, BIBI SHARIDAN

ART UNIT	PAPER NUMBER
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1746

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DATE MAILED: 07/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/865,138

Applicant(s)

ELLIS ET AL.

Examiner

Sharidan Carrillo

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 May 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22,33-42 and 44-57 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 22,33-42 and 44-57 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 09.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 22, 33-35, 41, 46-49, 51, and 53 are rejected under 35 U.S.C. 102(b) as being anticipated by Gardner et al. (3639279).

Gardner teaches a method and composition for removing scale from surfaces. In reference to claims 22, 33, and 46, Gardner teaches diglycolic acid and a base being present in an amount sufficient to adjust the pH of from about 6 to about 12 (col. 2, lines 15-20, 50-55; col. 4, lines 1-10). In reference to claim 34, refer to col. 7, lines 58-60. In reference to claim 35, refer to col. 4, lines 1-4 and Table 1 for example. In reference to claim 41, refer to col. 4, lines 20-25. In reference to claim 47, refer to Table 1. In reference to claim 48, refer to Table 1. For example, if the sodium citrate is 20%, the concentration of water is 80%. In reference to claims 49 and 51, refer to col. 2, lines 45-47. In reference to claim 53, refer to col. 2, line 65.

3. Claim 44 is rejected under 35 U.S.C. 102(b) as being anticipated by Tate (5762821).

Tate teaches a method of removing alkaline earth metal scale deposits and silica-based scale deposits. In reference to claim 44, refer to col. 2, lines 20-22, lines 55-65 and col. 3, lines 15-45.

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***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 36-37, 40, 50, 52, and 54-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gardner et al. (3639279).

Gardner et al. teach the invention substantially as claimed with the exception of

inspecting the substrate and recirculating the cleaning composition. Gardner et al. do teach circulating the composition over the surface for a period of time sufficient for the scale to be dissolved until the surface is substantially clean. It would have been obvious and within the level of the skilled artisan to repeat the cleaning process until the surface is substantially clean. Further, one of ordinary skill in the art would be required to inspect the substrate in order to determine if the surface is substantially clean and to further evaluate if additional cleaning is required.

In reference to claims 50, 52, and 54-56 Gardner et al. do not teach the specific concentrations of the basic agent. Gardner et al. do teach adding enough base to the solution in order to adjust the pH from about 6 to about 14. It would have been within the level of the skilled artisan to have modified the concentration of the base, as needed, in order to adjust the pH to the desired level. Further, where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. In re Aller, 105 USPQ 233, 235 (CCPA 1955).

8. Claims 38-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gardner et al. (3639279), as applied to claims 36-37, 40, 50, 52, 54, and 56 as described in paragraph 7 above, and further in view of Bersworth et al. (3033214).

Gardner et al. teach the invention substantially as claimed with the exception of Filtering and supplementing the composition with additional basic agent. Fig. 1, col. 3, lines 55-60 and col. 4, lines 12-20 of Bersworth et al. teach recycling of the spent cleaning solution.

It would have been obvious to a person of ordinary skill in the art to have modified the method of Gardner et al. to include filtering the solution, as taught by Bersworth et al., for the economical advantages of recycling the solution for reuse. Further, it would have been obvious to a person of ordinary skill in the art to have added additional base to the filtered solution in order to achieve the desired pH.

9. Claim 42 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gardner et al. (3639279), as applied to claims 22, 33-35, 41, 46-48, 49, 51, and 53 as described in paragraph 2 above, and further in view of Lesinski (RE 30,796).

Gardner et al. teach the invention substantially as claimed with the exception of passivating after rinsing. Lesinski teaches that a passivating film is formed on the surface after the surface is washed with chelant and base followed by rinsing.

It would have been within the level of the skilled artisan to have modified the method of Gardner et al. to include passivating after rinsing since Lesinski teaches that it is conventional in the art to form a passivating film after the surface is washed with chelant and base followed by rinsing.

10. Claims 45 and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gardner et al. (3639279), as applied to claims 22, 33-35, 41, 46-48, 49, 51, and 53 as described in paragraph 2 above, and further in view of Mayo et al. (3696040).

Gardner et al. teach the invention substantially as claimed with the exception of citric acid and the sodium or potassium hydroxide and the addition of additives. Mayo teaches a composition for removal of calcium sulfate deposits using a composition comprising citric acid and a base such as sodium and potassium hydroxide (col. 3, lines

10-15). Mayo further teaches that other chelants can be used such as glycolic acid. Mayo teaches the additional of a surfactant or an emulsifier to the composition in order to aid in wetting the mineral deposits and to further dissolve organic contaminants.

It would have been obvious to a person of ordinary skill in the art to have modified the method of Gardner et al., to include equivalent chelants, such as citric acid, as taught by Mayo et al. for purposes of performing the same function of scale removal. It would have been obvious to a person of ordinary skill in the art to have modified the method of Gardner et al., to include additional additives, such as surfactants, as taught by Mayo et al. for purposes of enhancing scale removal.

#### ***Response to Arguments***

11. The rejection of the claims under 112, first and second paragraphs are withdrawn in view of corrections made by applicant.

12. The rejections of the claims as being anticipated and unpatentable over Lensinski are withdrawn in view of the newly amended claims.

13. The rejection of the claims, with the exception of claim 44, as being anticipated and unpatentable over Tate is withdrawn in view of the newly amended claims. It should be noted that claim 44 was not amended and therefore, the previous art rejection is maintained.

14. The rejection of the claims as being anticipated and unpatentable over Bersworth is withdrawn in view of the newly amended claims.

15. A new grounds of rejection in view of the teachings of Gardner has been applied.

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharidan Carrillo whose telephone number is 703-308-1876. The examiner can normally be reached on M-F, 6:30am-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 703-308-4333. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7719 for regular communications and 703-308-7719 for After Final communications.




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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Sharidan Carrillo  
Primary Examiner  
Art Unit 1746

bsc  
July 28, 2003



SHARIDAN CARRILLO  
PRIMARY EXAMINER